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1/9/1 (Item 1 from file: 16)

01287072 **Supplier Number: 41503516 (THIS IS THE FULLTEXT)**

### **Planners Must Tailor Mutual Fund Mix to Suit Client**

Financial Services Week , p 23

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#### **Text:**

When it comes to investing in mutual funds, the mix is the important thing -- how you allocate a portfolio based on a client's risk tolerance.

Prudent financial planners don't chase after hot mutual funds that have outperformed the market over a couple of years. They aren't impressed by a fund manager who's made the cover of Money magazine. Financial research by mutual fund analysts such as Sheldon Jacobs or Burt Berry have shown it doesn't work -- this year's top performing equity funds will probably be next year's losers.

Experts agree that it's best to diversify mutual fund portfolio holdings among stocks, bonds, cash, precious metals and overseas securities to get the best return with the least amount of risk. Because those assets don't perform in tandem, gains in precious metals funds during periods of rising inflation will, for example, offset losses in stocks or bonds. Conversely, falling interest rates might spur stock prices, while a flight to quality into Treasury securities could boost bond prices.

Even for risk-averse investors living on a fixed income, mixing utility stocks with money funds or certificates of deposit acts as a hedge against loss of income when interest rates decline. For example, data show that if a portfolio is split 47% in CDs and 53% in utility stock mutual funds -- a safe income and growth play -- the expected return for the next year would be 11.6%. You could earn three percentage points more in total return than long-term government bonds but with almost one-half the price volatility or sensitivity to interest rates.

Or how, for example, could a financial planner beat a portfolio using asset allocation that gives the investor about 90% of the return on the Standard & Poor's 500 with one-third less risk as measured by the standard deviation in performance or the beta value -- a measure of a portfolio's covariance with the market?

Investors, for example, who put 50% in bonds, 20% in money funds, 25% in blue-chip stocks and 5% in gold stocks saw their investment grow at an annual rate of 10.2%, compared with an 11.5% annual gain on the S&P 500 over the past twenty years, according to Investment Information Services, Chicago. Though mixing fund assets to reduce risk is an important part of money management, it's not the only variable to consider when allocating a portfolio of mutual funds. Robert Levy, president of CDA Technologies, Rockville, Md., stresses that you have to use common sense when reviewing allocation scenarios produced by portfolio optimization software programs.

First, the time frame used to correlate assets' performances is an important variable. Levy noted that 36 months of past performance data is

usually used to correlate assets' returns to get expected rates of returns and standard deviations for the coming year. Thirty-six months of data is long enough to reflect current asset performance trends. Time periods shorter than that may be too volatile and unreliable, while 10 years' data may be weighted too heavily toward past performance.

Second, planners have to scrutinize the assets. For example, Levy said that junk bonds have lower standard deviations or price sensitivity to interest rates compared to investment-grade and government bonds. Though the low-quality bonds may be less sensitive to changes in interest rates, the bonds are exposed to event risk, or the risk that a company could default on principal or interest rate payments. But the event risk doesn't show up in an optimized mutual fund portfolio that includes junk bond funds and other fixed-income mutual funds.

Other analysts stress that a client's risk tolerance may stay the same from year to year, but the mixes produced by correlating assets to get a portfolio with the best risk vs. return numbers may change. For example, Richard Oberuc, president of Burlington Hall Asset Management, Hackettstown, N.J., said that when he screens for the best mix of small stock funds with fixed income, precious metals and cash based on the past three- or five-year performance, his LaPorte software program will factor out precious metals because they have performed poorly. A mix of small stock funds and fixed-income funds will have a better expected rate of return than a portfolio with precious metals mutual funds.

However, Oberuc noted that precious metals have historically been an inflation hedge. A portfolio with a precious metals position would be less risky and perform better during periods of high inflation. As a result, the decision of adding a precious metals fund to a portfolio's stock and bond funds in a question of market timing as well as asset allocation.

Dr. Avner Arbel, a professor of finance at Cornell University, Ithaca, N.Y., also advocates looking beyond mathematical portfolio mixes. "Asset allocation mixes aren't written in stone," he said. "You have to look at current trends as well. The mixes could change, or investors could rebalance the portfolio to maintain the same percentages. That way they are dollar cost averaging in poorly performing assets and taking profits in winners," he said.

For example, CDA optimization data reveal that a moderate growth-oriented portfolio mix changed over the past 12 to 18 months, although the expected rate of return remained at 12.9%. For example, the surge in stock prices over the past year may put a moderate investor looking for growth in the following mix: 14% in aggressive stock funds, 14% in growth and income funds, 25% in overseas stock funds, 8% in precious metals and 39% in money funds.

Twelve months ago, however, the same investor's mix was 9.5% aggressive stocks, 17.5% growth and income, 22% overseas stock funds, 6.5% precious metals and 44.5% money funds.

Allocated portfolios have to be tailor-made so that investors are satisfied with how risk is managed. With that in mind, here are several mixes that can be used as benchmarks based on CDA data. A 50/50 S&P 500 and long-term government bond mix has an expected rate of return of 12.6%, with a standard deviation of 12.6%.

A 50/50 S&P 500 and money fund split has an expected rate of return of 12.2%, with a standard deviation of 8.4%.

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3/9/2 (Item 2 from file: 148)

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**Helping employees invest wisely. (profit-sharing plans) (Financial Planning)**

Ranfile, H. Kenneth; Keppler, Michael J.

HRMagazine , v38 , n11 , p77(5)

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ISSN: 1047-3149

**Language:** ENGLISH

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**Word Count:** 2143 **Line Count:** 00184

**Abstract:** A review of the profit-sharing scheme in Towers Perrin showed that changes could be made in the program to improve it. Effective long-term strategies were developed for employees. These included the following changes: offering investment choices in different asset class portfolios with distinct risk and return characters, selecting new investment managers for the different portfolios, offering mixed portfolios and rebalancing preselected portfolio mixes automatically.

**Text:**

Like other employers, Towers Perrin faces the challenge of encouraging employees to participate in the company's profit-sharing plan as an integral part of their retirement resources.

In 1992, the Towers Perrin board of directors appointed a task force made up of representatives from the human resource department and members of its benefits and finance committees to undertake a thorough review of the firm's employee profit-sharing plan, a defined-contribution plan.

During the fact-finding phase, the task force found that most plan participants--active employees, retirees and other inactives--were making conservative investment decisions. Approximately 60 percent of the plan's money was invested in the fixed income fund.

Generally, the task force determined that employees did not have a long-term view of the plan, nor did they appreciate the importance of the plan as a retirement resource. This attitude about the plan, which the task force felt was reflected in employees' investment choices, was also based on a general lack of understanding of the basics of choosing investments.

The initial review of plan design suggested that some positive changes could be made in the investment choices themselves. In addition, the task force found that plan governance procedures--though consistently applied--could be clarified and documented.

Time for change

Working in tandem with Towers Perrin consultants, the task force set clear objectives for implementing changes to the profit-sharing plan. They were to ensure maximum potential return on participants' investments, provide participants with clear investment choices and assistance in managing risk and designing appropriate investment strategies, and manage plan fees appropriately and effectively.

To achieve these goals, the task force decided to adjust the asset-mix strategy of the plan and then review and select appropriate investment managers and educate employees about the role of the plan and their investment choices. The resulting changes were well-received and understood

by employees at all levels.

#### Innovative investment strategy

The first step in the redesign process was to thoroughly review the investment choices offered through the plan. Towers Perrin asset consultants, who help identify effective long-term investment strategies for defined-benefit and defined-contribution pension plan assets, recommended that the task force consider an approach based on "efficient frontier optimization" technology. This approach identifies the mix of investments that provides the highest expected return at any given level of risk. To carry out this approach the asset consultants advised the following changes, which Towers Perrin implemented effective January 1, 1993:

- \* Offer investment choices in different asset class portfolios with distinct risk and return characteristics. No changes were made in the fixed income portfolio, since it was redesigned in 1991. However, three new equity asset-class portfolios were introduced: Large Company Domestic Equities, Intermediate and Small Company Domestic Equities and International Equities. These portfolio choices replaced the Equity Growth, Equity Income and Social & Urban Funds.

- \* Select new investment managers for each of the equity asset-class portfolios. Successful candidates were chosen unanimously after a thorough review by the task force. Managers were judged on a wide array of selection criteria, including investment approach and philosophy, investment methodologies, historical performance, and commitment to service and fees. Two investment managers were chosen for each of the three equity-asset classes to provide a balanced approach to investing these funds. Each of the plan's investment managers will be reviewed quarterly by Towers Perrin asset consultants. This periodic review allows the company to meet plan governance requirements and monitor performance standards.

- \* Offer employees portfolio mixes to take advantage of professional investment strategies. Towers Perrin asset consultants assembled the basic asset-class building blocks into diversified portfolio mixes. Each mix is a modern, balanced investment fund combining equities that are expected to provide greater long-term returns with fixed income investments, which provide greater stability in value. To further manage the potential fluctuations in the mixes' values, investments in equities are diversified among the three new equity asset-class portfolios.

The plan offers the following five preselected portfolio mixes, which are designed to provide the optimal expected return at the level of risk involved:

- \* Mix A is the most conservative, with fixed income investments predominating.

- \* Mixes B, C and D are progressively more aggressive, with an increasing percentage of holdings invested in equities.

- \* Mix E is a 100-percent equity choice, the most aggressive of the plan's mixes.

Participants who don't find a mix that fits their personal investment strategy can create their own portfolio from any of the plan's underlying asset classes, both fixed income investments and equities.

Exhibit 1 shows how the four asset classes and investment portfolio mixes compare with each other on the risk and return scale, and where the mixes fall. Exhibit 2 shows the percentage of fixed income and equity holdings in each of the mixes. Both exhibits were used in the employee communication materials.

- \* Rebalance preselected portfolio mixes automatically. An advantage of the preselected mixes is that they will be automatically rebalanced to maintain the same combination of fixed income and equity investments within a range of tolerance. This keeps the investment mixes consistent with the preselected level of risk. It also helps employees avoid the risk of trying

to "time" the market. In fact, automatic rebalancing facilitates buying low and selling high on a systematic basis.

Rebalancing is not automatic for participants who create their own portfolios, although these participants can still transfer funds monthly in order to keep the appropriate percentage of their profit-sharing account invested in the asset classes of choice.

#### Additional plan changes

The task force analyzed and adopted three additional plan changes. First, a new trustee was selected based on service capabilities and fees as well as the ability to value and rebalance the portfolio mixes. Asset consultants helped define a strategy for transferring assets from the existing to the new investment managers in concert with the new trustee.

Second, the task force decided that future investment management and trustee fees, paid primarily by Towers Perrin in the past, would be paid directly from the four asset-class portfolios. The use of both active and passive management of the four asset classes is expected to produce returns that exceed specific benchmarks. The firm believes the higher returns will more than cover the fees involved and still result in improved net returns for participants. Administrative and record-keeping fees will continue to be paid by Towers Perrin.

Third, plan governance provisions on selecting and reviewing performance of fiduciaries, trustees, investment managers and administrators were clarified, along with documentation of the chain of responsibility for all governance decisions.

#### Educating participants

The human resource department worked with Towers Perrin communication consultants to help participants understand their new investment choices. The goals of the communication campaign were to

- \* Provide meaningful information about investment basics so that participants could make educated decisions about how to invest in the plan.
- \* Reinforce the primary objective of the profit-sharing plan as a means of saving and investing for long-term retirement needs.

The information provided to participants focused on helping them understand the need to save and invest effectively based on their own specific investment goals. The investment decision was communicated as a choice about how to balance risk and potential return--not simply as a choice among investment funds. The themes, Investing in Your Future and Making the Most of Your Money, were repeated throughout the various communication materials. To reach all participants, including retirees and inactive participants, the communication campaign incorporated a variety of media, such as

- \* An initial announcement from human resources to local management to inform them of the changes and enlist their help in the communication process.

- \* An announcement memo to participants briefly summarizing the key features of the asset classes and portfolio mixes and providing a schedule of upcoming communication activities.

- \* Two articles in the firm's human resource magazine, InnerView. The first provides the background on the changes to the profit-sharing plan along with underlying investment basics and the second provides a perspective on retirement planning and a link to the profit-sharing plan.

- \* A summary brochure identifying investment managers and including full descriptions of the preselected portfolio mixes.

- \* Face-to-face meetings led by trained meeting leaders to answer questions about the new choices.

#### Implementing system changes

Once the new investment choices were defined, the firm implemented changes in the interactive telephone system and Towers Perrin's record-keeping AccountManager software for defined contributions.

Personalized election worksheets were generated to communicate existing account balances and individual profit-sharing allocations for 1992. This personalized information was sent to both active and retired and other inactive participants to help them make investment choices over a one-week period in early December. Confirmation forms verifying choices were mailed to participants before the January 1 effective date of the change.

#### Results

The new investment choices made by participants tell an interesting story. There was wide general acceptance of the preselected portfolio mixes. Active participants shifted toward a more aggressive investment strategy, consistent with a long-term investment approach. Only 5 percent of active participants elected a 100-percent fixed income portfolio, compared to 24 percent of active participants in 1992. Other observations of the choices made by active participants:

- \* Among actives, three-quarters of participants in all age groups chose to invest in the preselected portfolio mixes; however, the older participants did elect the more conservative portfolio-mix choices.

- \* Eighty percent of administrative staff chose preselected mixes (compared with about 76 percent of junior professional staff and 71 percent of senior professional staff) and selected the more conservative of the preselected mixes.

Feedback from participants and meeting leaders indicated a new appreciation of the need for a personal investment strategy. Also, many participants felt they were able to make informed decisions about investing and appreciated being able to take advantage of the fund manager's expertise and investment technology through automatic rebalancing of the mixes.

#### What's next?

The positive response to the design and communication of the new investment options was encouraging, providing concrete evidence that education makes a significant impact on the behavior of employees. Information on investment basics enabled employees to make long-term decisions about how to invest for the future. Towers Perrin plans to undertake a retirement-planning education program to help employees target how much they will need and how much they need to save on their own for retirement.

Additional communication activities will include the introduction of interactive software to help employees with retirement and investment planning, supplemented with continuing information about how to plan for financial security in retirement. In an ongoing effort to deliver benefits that are appropriate and that meet employees' ever-changing needs, the human resource department will continue to monitor the performance of the mixes and the investment managers with the help of Towers Perrin asset consultants.

#### Before Plan Redesign

- \* Before 1992, the plan offered four investment choices. A fixed income fund (redesigned during 1991) offered investments in a mix of guaranteed investment contracts and intermediate and short-term bonds. Three equity funds--an equity growth fund, an equity income fund and a social and urban fund--offered participants the ability to invest more aggressively in diversified funds holding common stocks.

- \* Towers Perrin's finance department administered the profit-sharing plan until 1991, when administration and record-keeping activities for all benefit plans were consolidated into the human resource department. With the shift, improvements in the interactive telephone and record-keeping systems allowed participants the convenience of monthly processing of fund transfers, withdrawals and loans.

- \* Communication about the plan's investment options focused on basic



descriptions of the funds and the fund managers. To keep participants informed about their choices, investment reports showing current results and the historical experience of each of the investment funds were distributed annually. Participants received quarterly statements showing account balances and fund performance, and monthly performance results were also available through the interactive telephone system.

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Michael J. Keppler is director of compensation and benefits at Towers Perrin and a consultant specializing in total compensation issues.

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**Special Features:** illustration; chart; graph

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Biographical Retrieval Services	count	BRS request	Database	Search date
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BRS	3	((705/36).ccis) and (passive\$ near5 index\$ near5 fund\$) and (stock\$ or securit\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 10:28
BRS	17	((705/36).ccis) and (index\$ near2 fund\$) and (stock\$ or securit\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 11:36
BRS	7	((705/36).ccis) and (index\$ near2 fund\$) and (stock\$ or securit\$) and (rebalanc\$ or re-balance\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 11:41
BRS	29	((705/36).ccis) and (portfolio\$ same allocas\$) and ((select\$ or rank\$ or priorit\$) same (lead\$ or first\$) )	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 13:53
BRS	9	((705/36).ccis) and (portfolio\$ same allocas\$) and ((select\$ or rank\$ or priorit\$) same (lead\$ or first\$) ) and rank\$	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 13:59
BRS	1	((705/36).ccis) and (portfolio\$ same allocas\$) and ((select\$ or rank\$ or priorit\$) same (lead\$ or first\$) ) and prioritize	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 14:00
BRS	9	((705/36).ccis) and (portfolio\$ same allocas\$) and ((select\$ or rank\$ or priorit\$) same (lead\$ or first\$) ) and priorit\$	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 14:01
BRS	41	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 15:44
BRS	2	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ ) and (value\$ adj2 line\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 15:55
BRS	0	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ ) and (index\$ same quarter\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 16:23
BRS	41	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ )	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 16:45
BRS	12	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ ) and rank\$	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 16:45
BRS	0	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ ) and (rank\$ same priorit\$) and rebalanc\$	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 16:50
BRS	4	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$ ) and rebalanc\$	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/08/31 16:50
BRS	41	((705/36).ccis) and (fund\$ near2 allocas\$) and (sum\$ or group\$ or total\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/09/03 16:52
BRS	48	((705/36).ccis) and (portfolio\$ same allocas\$)	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/09/03 16:54
BRS	3	("5745706").pn.	USPAT: US-PGPUB: EPO: JPO; DERWENT: IBM TDB	2001/09/03 16:54

## **2. Data processing system for hub and spoke financial services configuration**

PAT 03-09-93 05193056 NDN- 095-0190-2498-3

**INVENTOR(S)-** Boes, R. Todd

**PATENT NUMBER-** 05193056

**PATENT APPLICATION NUMBER-** 667777

**DATE FILED-** 1991-03-11

**PATENT DATE-** 1993-03-09

**NUMBER OF CLAIMS-** 6

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 18

**ART/GROUP UNIT-** 231

**PATENT CLASS-** Invention (utility) patent

**PATENT ASSIGNEE(S)-** Signature Financial Group Inc.

**ASSIGNEE CITY-** Boston

**ASSIGNEE STATE-** MA

**ATTORNEY, AGENT, OR FIRM-** Pennie & Edmonds

**U.S. PATENT CLASS-** 3644080000

**INTERNATIONAL PATENT CLASS-** 5G06F01521; G06F01530

**PATENT REFERENCED BY-** 05893079; 05926792; 05933815; 05940810; 05991736; 05999917; 06012035; 06029148; 06041309; 06064985; 06076069; 06085176; 06088685

A data processing system is provided for monitoring and recording the information flow and data, and making all calculations, necessary for maintaining a partnership portfolio and partner fund (Hub and Spoke) financial services configuration. In particular, the data processing system makes a daily allocation of assets of two or more funds (Spokes) that are invested in a portfolio (Hub). The data processing system determines the percentage share (allocation ratio) that each fund has in the portfolio, while taking into consideration daily changes both in the value of the portfolio's investment securities and in the amount of each fund's assets. The system also calculates each fund's total investments based on the concept of a book capital account, which enables determination of a true asset value of each fund and accurate calculation of allocation ratios between the funds. The data processing system also tracks all the relevant data, determined on a daily basis for the portfolio and each fund, so that aggregate year-end data can be determined for accounting and for tax purposes for the portfolio and for each fund.

**EXEMPLARY CLAIMS-** Claim- 1. A data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising: (a) computer processor means for processing data; (b) storage means for storing data on a storage medium; (c) first means for initializing the storage medium; (d) second means for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds, assets and for allocating the percentage share that each fund holds in the portfolio; (e) third means for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund; (f) fourth means for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and (g) fifth means for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

### **3. Automated system for managing a non-qualified deferred compensation plan**

**PAT 12-07-99 05999917 NDN- 175-0354-5836-3**

**INVENTOR(S)- Facciani, Andrea Marie; Facciani, Gerald; Gilje, Mark; Khodara, Jean-Philippe; Koppes, Seth; Meier, Bill**

**PATENT NUMBER- 05999917**

**PATENT APPLICATION NUMBER- 705883**

**DATE FILED- 1996-08-29**

**PATENT DATE- 1999-12-07**

**NUMBER OF CLAIMS- 25**

**EXEMPLARY CLAIMS- 1**

**FIGURES- 11**

**ART/GROUP UNIT- 271**

**PATENT CLASS- Invention (utility) patent**

**PATENT ASSIGNEE(S)- Bancorp Services, L.L.C.**

**ASSIGNEE CITY- St. Louis**

**ASSIGNEE STATE- MO**

**ATTORNEY, AGENT, OR FIRM- Oblon, Spivak, McClelland, Maier & Neustadt, P.C.**

**U.S. PATENT CLASS- 7050360000**

**U.S. CLASSIFICATION REFS.- X705035000; X705037000; X705004000**

**INTERNATIONAL PATENT CLASS- 6G06F01760**

**PATENT REFERENCE(S)- 4554418; 4566066; 4642768; 4648037; 4674044; 4722055; 4750121; 4752877; 4774663; 4799156; 4839804; 4876648; 4926325; 4933842; 4942616; 4969094; 5101353; 5126936; 5193056; 5214579; 5262942; 5291398; 5414838; 5752236; 5806042**

**PATENT REFERENCED BY- 06161096**

An automated system for managing the assets and liabilities of Non-Qualified Deferred Compensation (NQDC) plans. This system uses information from money managers, insurance and annuity carriers, plan sponsors and plan participants to track and report the assets and liabilities of NQDC plans on a daily basis. The system interfaces with fund managers and insurance and annuity carriers via modem links and with plan sponsors and participants via modem, fax or automated voice response units. The system calculates the value of the liabilities of the plan, the value of the assets of the plan and produces a report comparing the status of each on a daily basis. The system reviews the balance and levels that the sponsor has provided and determines whether changes in asset allocation are required. If changes are required, the system either provides the relevant information to the plan sponsor or directly to the asset manager, whether it be a mutual fund, insurance policy, or annuity that needs adjustment. The system also projects asset and liabilities into the future, further providing relevant information to the plan sponsor on a near real-time basis.

**EXEMPLARY CLAIMS- Claim- 1.** A computer system for managing a Non-Qualified Deferred Compensation (NQDC) plan on behalf of a plan sponsor, the NQDC plan being offered to a plan participant by the plan sponsor, the computer system comprising: storage means for storing information about an asset group

specified by the plan sponsor, the asset group comprising liabilities for investments made by the plan participant, assets held by the plan sponsor to cover the liabilities and a benchmark indicating an assigned correlation threshold between the assets and the liabilities; first communication means for receiving updated values corresponding to the assets and liabilities; computing means for computing an updated value of the assets and an updated value of the liabilities; determining means for reading the benchmark from the storage means and determining if the updated value of the assets and the updated value of the liabilities are within the benchmark; and notification means for notifying the plan sponsor that there is an asset imbalance if the determining means determines that the updated value of the assets and the updated value of the liabilities are not within the benchmark.

**NO-DESCRIPTORS.**

**4. Computer assisted and/or implemented process and architecture for administering an investment and/or retirement program**

PAT 07-04-00 06085174 NDN-217-0372-9132-0

**INVENTOR(S)-** Edelman, Ric

**PATENT NUMBER-** 06085174

**PATENT APPLICATION NUMBER-** 936020

**DATE FILED-** 1997-09-23

**PATENT DATE-** 2000-07-04

**NUMBER OF CLAIMS-** 13

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 24

**ART/GROUP UNIT-** 275

**PATENT CLASS-** Invention (utility) patent

**INVENTOR COUNTRY/ZIPCODE-** 22033

**ATTORNEY, AGENT, OR FIRM-** Donner, Irah H.; Pepper Hamilton LLP

**U.S. PATENT CLASS-** 7050360000

**U.S. CLASSIFICATION REFS.-** X705037000; X705038000; X705035000

**INTERNATIONAL PATENT CLASS-** 7G06F01760

**PATENT REFERENCE(S)-** 4346442; 4376978; 4722055; 4752877; 4953085; 5214579; 5689649; 5775734; 5802500; 5809484; 5839118

A computer program product stores computer instructions therein for instructing a computer to perform a process of administering or assisting in the administration of resources of a customer for the benefit of a beneficiary. The program product includes a recording medium readable by the computer, and computer instructions stored thereon instructing the computer to perform the process. The instructions and the process include receiving a request from the customer to administer the resources in accordance with predetermined criteria, and storing customer related data associated with the customer. The instructions and process also include determining a predetermined period of time based on an age of the beneficiary at which withdrawals do not incur a tax penalty, and administering the resources in an annuity investment growing tax deferred in accordance with withdrawal criteria, and preventing withdrawal of the resources responsive to the withdrawal criteria.

**EXEMPLARY CLAIMS-** Claim- 1. A computer program product storing computer instructions therein for instructing a computer to perform a first process of at least one of administering and assisting in the administration of resources of a customer for the benefit of a beneficiary via the assistance of a user optionally

including an administrator performing a second process, the program product comprising: a recording medium readable by the computer; and the computer instructions stored on said recording medium instructing the computer to perform the first process, the instructions and the first and second processes, including: (a) receiving, by the user, a request from the customer to administer the resources in accordance with predetermined criteria; (b) storing, by the computer, customer related data associated with the customer; (c) at least one of receiving and acknowledging, by the user with the assistance of the computer, receipt of the resources from the customer, and entering the resources into the computer for administration; (d) appointing, by the user, a trustee to administer and manage the resources; (e) determining, by at least one of the user and the computer, a predetermined period of time based on an age of the beneficiary at which withdrawals do not incur a tax penalty; (f) administering, by the trustee with the assistance of the computer, the resources including allocating of the resources in an annuity investment growing tax deferred for at least one of the predetermined period of time and until occurrence of a predetermined event, wherein the predetermined event enables withdrawals without incurring tax penalty; (g) tracking performance of the resources; (h) transmitting, by at least one of the trustee and user with the assistance of the computer, details of the administration of the resources to at least one of the beneficiary and the customer; (i) requesting, by the beneficiary, to at least one of the trustee and user to withdraw the resources; (j) determining, by at least one of the trustee and the user with the assistance of the computer, whether an initial period of time has expired; (k) rejecting, by at least one of the user and the trustee with the assistance of the computer, the request of the beneficiary when the initial period of time has expired and when the predetermined period of time has not expired and when the predetermined event has not occurred, and returning to said administering step (f), wherein at least one of the user and the trustee thereby prevents withdrawal of resources so that the resources may grow tax-deferred for at least one of the predetermined period of time and until the occurrence of the predetermined event, ensuring that the resources are not prematurely diverted and preventing the growth of the resources from being compromised; (l) transmitting, by at least one of the user and the trustee with the assistance of the computer, the resources to the beneficiary when the initial period of time has not expired; and (m) transmitting, by at least one of the user and the trustee with the assistance of the computer, the resources in accordance with the predetermined criteria to the beneficiary when the initial period of time has expired and when the predetermined period of time has at least one of expired and when the predetermined event has occurred.

**5. Computer assisted and/or implemented process and architecture for customer account creation, maintenance and administration for an investment and/or retirement program**

PAT 05-16-00 06064986 NDN- 217-0368-6197-8

INVENTOR(S)- Edelman, Fredric M.

PATENT NUMBER- 06064986

PATENT APPLICATION NUMBER- 233169

DATE FILED- 1999-01-19

PATENT DATE- 2000-05-16

NUMBER OF CLAIMS- 19

EXEMPLARY CLAIMS- 1

FIGURES- 30

ART/GROUP UNIT- 275

PATENT CLASS- Invention (utility) patent

PATENT ASSIGNEE(S)- Edelman Financial Services, Inc.

ASSIGNEE CITY- Fairfax

ASSIGNEE STATE- VA

ATTORNEY, AGENT, OR FIRM- Dunner, Irah H.; Pepper Hamilton LLP

U.S. PATENT CLASS- 7050360000

U.S. CLASSIFICATION REFS.- X705035000; X705037000; X705040000

INTERNATIONAL PATENT CLASS- 7G06F01900

PATENT REFERENCE(S)- 4346442; 4376978; 4722055; 4752877; 4953085; 5214579; 5644727; 5689649; 5775734; 5787404; 5802500; 5809484; 5839118; 5852811; 5864685; 5875437

A computer program product, system or process administer or assist in the administration of resources of a customer for the benefit of a beneficiary. The process includes receiving a request from the customer to administer the resources in accordance with predetermined criteria, and storing customer related data associated with the customer. A network of service providers is formed to assist in the administration of the resources for the customer and provide a variety of economic and/or administrative features and benefits, using a computer.

**EXEMPLARY CLAIMS-** Claim- 1. A computer program product storing computer instructions therein for instructing a computer to perform a first process of at least one of administering and assisting in the

administration of resources of a customer for the benefit of a beneficiary via the assistance of a user optionally including an administrator performing a second process, the program product comprising: a recording medium readable by the computer ; and the computer instructions stored on said recording medium instructing the computer to perform the first process, the instructions and the first and second processes including: (a) receiving, by the user, a request from the customer to administer the resources in accordance with predetermined criteria; (b) storing, by the computer , customer related data associated with the customer; (c) at least one of receiving and acknowledging, by the user with the assistance of the computer , receipt of the resources from the customer, and entering the resources into the computer for administration; (d) appointing, by the user, a trustee to administer and manage the resources; (e) determining, by at least one of the user and the computer , a predetermined period of time based on an age of the beneficiary at which withdrawals do not incur a tax penalty; (f) administering, by the trustee with the assistance of the computer , the resources including allocating of the resources in an annuity investment growing tax deferred for at least one of the predetermined period of time and until occurrence of a predetermined event, wherein the predetermined event enables withdrawals without incurring tax penalty; (g) tracking performance of the resources; (h) transmitting, by at least one of the trustee and the user with the assistance of the computer , details of the administration of the resources to at least one of the beneficiary and the customer; (i) requesting, by the beneficiary, to at least one of the trustee and the user to withdraw the resources; (j) determining, by the at least one of the trustee and the user with the assistance of the computer , whether an initial period of time has expired; (k) rejecting, by at least one of the user and the trustee with the assistance of the computer , the request of the beneficiary when the initial period of time has expired and when the predetermined period of time has not expired and when the predetermined event has not occurred, and returning to said administering step (f), wherein at least one of the user and the trustee thereby prevents withdrawal of resources so that the resources may grow tax-deferred for at least one of the predetermined period of time and until the occurrence of the predetermined event, ensuring that the resources are not prematurely diverted and preventing the growth of the resources from being compromised; (l) transmitting, by at least one of the user and the trustee with the assistance of the computer , the resources to the beneficiary when the initial period of time has not expired; and (m) transmitting, by at least one of the user and the trustee with the assistance of the computer , the resources in accordance with the predetermined criteria to the beneficiary when the initial period of time has expired and at least one of when the predetermined period of time has expired and when the predetermined event has occurred.

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## **6. System for managing hedged investments for life insurance companies**

**PAT 04-11-00 06049772 NDN- 217-0365-2968-6**

**INVENTOR(S)-** Payne, Richard Christopher; Mann, Richard Wallace; Todd, Melvin George; Verrier, Marc Guy; Stracka, John Anthony

**PATENT NUMBER-** 06049772

**PATENT APPLICATION NUMBER-** 769798

**DATE FILED-** 1996-12-19

**PATENT DATE-** 2000-04-11

**NUMBER OF CLAIMS-** 72

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 3

**ART/GROUP UNIT-** 271

**PATENT CLASS-** Invention (utility) patent

**INVENTOR COUNTRY/ZIPCODE-** CAX; .; .; CAX; .

**PATENT ASSIGNEE(S)-** FDI/Genesis

**ASSIGNEE CITY-** Madison

**ASSIGNEE STATE-** WI

**ATTORNEY, AGENT, OR FIRM-** Dickstein Shapiro Morin & Oshinsky LLP

**U.S. PATENT CLASS-** 7050040000

**INTERNATIONAL PATENT CLASS-** 7G06F01900

**PATENT REFERENCE (S)-** 4642768; 4739478; 4742457; 4750121; 4839804; 4969094; 5126936; 5191522; 5202827; 5214579; 5291398

A system for analyzing and managing a plurality of specified life insurance policies and annuity contracts on behalf of an insurance carrier. The life insurance policies or annuity contracts depend on stock market performance in that the account value increase is determined as a percentage of the performance of a stock market index, with set caps and floors. The percentage is adjusted according to the yield on fixed rate assets. The system manages the increased risk from participation in the stock market by periodically monitoring assets and liabilities and determining the purchase and sale of stock options and other hedging instruments to cover the risks. The system also provides cash and profit determinations from the life insurance policies and annuity contracts.

**EXEMPLARY CLAIMS-** Claim- 1. A computer system comprising: collection means for collecting and inputting an initial premium value for at least one account at a first time period; said at least one account comprises an account value, wherein at said first time period said account value is based on said initial premium value, and during successive time periods said account value varies at a value rate when said value rate is greater than a floor rate and said account value varies at said floor rate when said value rate is less than said floor rate; wherein said value rate comprises the product of a participation rate and a change in a value of a predetermined stock index, wherein the participation rate is a predetermined percentage; input means for receiving said values of said predetermined stock index; account valuation and hedge factor means for determining an account value of said account and for determining a benefit hedge factors from at least said participation rate and said floor rate; and transfer command means for outputting a transfer command to transfer assets to at least one fixed rate instrument and at least one hedging instrument relative to said benefit hedge factors.

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### **Citations from U.S. Patent Bibliographic Database: PA1**

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## **7. System for managing a stable value protected investment plan**

**PAT 07-20-99 05926792 NDN- 175-0339-4388-2**

**INVENTOR(S)-** Koppes, Seth C.; Lanigan, Edward J.; Meier, William A.; Hurwitz, Richard M.; Garlich, Chris J.; Gilje, Mark A.; Fargo, Scott L.

**PATENT NUMBER-** 05926792

**PATENT APPLICATION NUMBER-** 157096

**DATE FILED-** 1998-09-18

**PATENT DATE-** 1999-07-20

**NUMBER OF CLAIMS-** 37

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 18

**ART/GROUP UNIT-** 274

**PATENT CLASS-** Invention (utility) patent

**PATENT ASSIGNEE(S)-** Bancorp Services, Inc.

**ASSIGNEE CITY-** St. Louis

**ASSIGNEE STATE-** MO

**ATTORNEY, AGENT, OR FIRM-** Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

**U.S. PATENT CLASS-** 7050040000

**U.S. CLASSIFICATION REFS.-** X705035000

**INTERNATIONAL PATENT CLASS-** 6G06F01700

**PATENT REFERENCE(S)-** 4566066; 4642768; 4648037; 4674044; 4722055; 4750121; 4752877; 4774663; 4839804; 4933842; 4942616; 4969094; 5101353; 5126936; 5193056; 5214579; 5262942; 5291398; 5414838; 5752236; 5806042; 5819230

**PATENT REFERENCED BY-** 06122635

Method and system to track, reconcile and administer the values of life insurance policies in separate accounts, including Stable Value Protected funds. Accordingly, targeted returns are translated into unit values on a daily basis for each fund. Additionally the system tracks restrictions (e.g., timing, amount of withdrawal and amount of reallocations) on a premium-by-premium basis, and tracks the book value, market value, duration and targeted return on a client-by-client basis. The system calculates and tracks the payments and credits applicable to a withdrawal or reallocation request, in addition to the liquidation schedules for each fund based on the payment amounts and credits of specific funds. Additionally, daily unit values are calculated given a periodic targeted return (i.e., a quarterly targeted return).

**EXEMPLARY CLAIMS-** Claim- 1. A computer system for managing a life insurance policy on behalf of a policy holder, the computer system comprising: generating means for generating a life insurance policy including a stable value protected investment with an initial value based on a value of underlying securities; fee calculating means for calculating fee units for members of a management group which manage the life insurance policy; credit calculating means for calculating surrender value protected investment credits for the life insurance policy; investment determining means for determining an investment value and a value of the underlying securities for the current day; policy calculating means for calculating a policy value and a policy unit value for the current day; storing means for storing the policy unit value for the current day; and one of: removing means for removing the fees units for members of the management group which manages the life insurance policy, and accumulating means for accumulating fee units on behalf of the management group.

**NO-DESCRIPTORS .**

## **8. System and method for designing and administering survivor benefit plans**

**PAT 06-15-99 05913198 NDN- 175-0336-6901-2**

**INVENTOR(S)- Banks, David P.**

**PATENT NUMBER- 05913198**

**PATENT APPLICATION NUMBER- 926419**

**DATE FILED- 1997-09-09**

**PATENT DATE- 1999-06-15**

**NUMBER OF CLAIMS- 44**

**EXEMPLARY CLAIMS- 1**

**FIGURES- 3**

**ART/GROUP UNIT- 275**

**PATENT CLASS- Invention (utility) patent**

**PATENT ASSIGNEE(S)- SBP Services, Inc.**

**ASSIGNEE CITY- Deerfield Beach**

**ASSIGNEE STATE- FL**

**ATTORNEY, AGENT, OR FIRM- Jones, Day, Reavis & Pogue**

**U.S. PATENT CLASS- 7050040000**

**U.S. CLASSIFICATION REFS.- X705035000; X705036000**

**INTERNATIONAL PATENT CLASS- 6G06F01530; G06F01700**

**PATENT REFERENCE(S)- 4346442; 4376978; 4642768; 4722055; 4750121; 4766539; 4831526; 4837693; 4839804; 4975840; 5136502; 5429506; 5754980; 5812987**

**PATENT REFERENCED BY- 06167384**

A computer-implemented system and method for designing and administering self-funded survivor benefit plans is disclosed. The system includes a specific purpose computer programmed with several computer software modules that enable the system to carry out the method disclosed. The system also includes at least one investment vehicle, such as a trust fund, that holds the employer/employee contributions to the plan, manages the investments of the plan and may also purchase and manage insurance contracts on certain high-risk and other employees to limit the liability and tax exposure of the plan. The computer software modules include a data import module for importing employer/employee data into a database that is also part of the system, a benefit plan design and costing module for modeling and optimizing the survivor benefit plan, an enrollment and administration module to manage the ongoing operation of the plan, and several other ancillary modules.

**EXEMPLARY CLAIMS-** Claim- 1. A computer-implemented data-processing method for providing survivor income benefits to an employee's-designated survivor(s), comprising the steps of: providing a computer system for executing the computer-implemented method, the computer system having a database for storing information; storing employee and survivor(s) information in the database necessary to calculate a survivor income benefit and a benefit payment period for each employee-designated survivor(s) and calculating the survivor income benefit using this information; calculating the net present value of the survivor income benefit for each survivor(s); identifying all survivor benefits payable to each employee's-designated survivor(s), from other enumerated sources, and entering this information into the database; calculating the net present value of the survivor benefits payable from other sources for each employee-identified survivor(s); calculating, by processing information in the database on the computer system, projected year-by-year differences between the present value of the survivor income benefit payable to each survivor(s) and the present value of the survivor benefits payable from other sources to each survivor(s), and storing this information into the database on the computer system; determining, by processing information in the database on the computer system, the year-by-year net present value of investment assets whose portfolio value or investing-resulting cash flow provides cash equaling the projected difference between each survivor(s) income benefit and each survivor(s) benefits payable from other sources; providing data from the computer system so that sufficient investment assets may be acquired or sold to provide necessary year-by-year investment-resulting cash flow and portfolio yield, from contributions made by at least one of the employer and the employee; making periodic payments to each survivor(s), each payment being proportionate to the survivor income benefit divided by the benefit payment period; redetermining annually the survivor income benefit, the survivor benefits from other sources, the benefit payment period, the value of investment assets, and the contributions made by at least one of the employer and employee, and storing this information into the database; and continuing the periodic payments to each survivor(s) for a set period of time or until a benefit termination event occurs.

**NO-DESCRIPTORS .**

## **9. System for managing financial accounts by a priority allocation of funds among accounts**

PAT 06-08-99 05911135 NDN- 175-0336-2499-5

**INVENTOR(S)**- Atkins, Charles Agee

**PATENT NUMBER**- 05911135

**PATENT APPLICATION NUMBER**- 686319

**DATE FILED**- 1991-04-16

**PATENT DATE**- 1999-06-08

**NUMBER OF CLAIMS**- 22

**EXEMPLARY CLAIMS**- 1

**FIGURES**- 16

**ART/GROUP UNIT**- 271

**PATENT CLASS**- Invention (utility) patent

**PATENT ASSIGNEE(S)**- Proprietary Financial Products, Inc.

**ASSIGNEE CITY**- Charleston

**ASSIGNEE STATE**- SC

**ATTORNEY, AGENT, OR FIRM**- Pennie & Edmonds LLP

**U.S. PATENT CLASS**- 7050360000

**U.S. CLASSIFICATION REFS.**- X705035000; X705037000; X705038000

**INTERNATIONAL PATENT CLASS**- 6G06F01760

**PATENT REFERENCE(S)**- 3634669; 3697693; 4334270; 4346442; 4376978; 4597046; 4642767; 4722055; 4742457; 4752877; 4774663; 4953085

**PATENT REFERENCED BY**- 06012044; 06021397; 06029148; 06078904; 06078905

A personal financial management program is disclosed for implementing, coordinating, supervising, analyzing and reporting upon investments in an array of asset accounts and credit facilities within a client account. Through a mathematical programming function the client specifies his financial objectives, his risk preference, forecast of economic and financial variables, and budgetary constraints. The mathematical programming function suggests to the client a portfolio of investment and credit facilities to best realize his financial objectives over a defined time horizon. In the preferred embodiment the central structural element of the financial account is a mortgage secured by the client's home and one or more asset accounts. Client funds that would normally be used to amortize the mortgage may be alternatively used to increase the value of a designated asset account. The client account is imbalanced if the client's borrowing power is less than the minimum borrowing power specified by the financial institution. If the account is imbalanced, the client may reallocate the distribution of assets and liabilities within the client account and/or modify a set of constraints on the client account. If the client account is still not balanced after modification of the account, the system initiates a liquidation procedure.

**EXEMPLARY CLAIMS**- Claim- 1. A computer system operating at least one client account at an institution providing financial services or financial processing comprising: processing means; memory means connected to said processing means for storing information pertaining to the client accounts(s); means for maintaining on said computer system data for said client account(s), each of said client accounts comprising at least one asset account having means for receiving funds for investment purposes, said asset account further having means for updating an account balance upon receipt of said funds and at least one liability account including a loan, a condition of which is the periodic payment of a sum of money equal to or in excess of interest charged on the loan; means for establishing a priority for the allocation of funds to said investment asset account(s) and said liability account(s); means for using said computer system to allocate funds that are received to pay interest on the loan, and allocate any remaining portion of said payments to one or more of said investment asset account(s) and said liability account(s) other than the loan according to said priority; and updating the prioritized allocation in accordance with changes to financial and economic variables.

**NO-DESCRIPTORS**.

**10. System and method for implementing and administering lender-owned credit life insurance policies**

PAT 05-25-99 05907828 NDN- 175-0335-5264-9

INVENTOR(S)- Meyer, Bennett S.; Chatfield, William D.

PATENT NUMBER- 05907828

PATENT APPLICATION NUMBER- 578307

DATE FILED- 1995-12-26

PATENT DATE- 1999-05-25

NUMBER OF CLAIMS- 20

EXEMPLARY CLAIMS- 1

FIGURES- 7

ART/GROUP UNIT- 271

PATENT CLASS- Invention (utility) patent

INVENTOR COUNTRY/ZIPCODE- 19117; 19335

ATTORNEY, AGENT, OR FIRM- Dreyer, Douglas P

U.S. PATENT CLASS- 7050040000

U.S. CLASSIFICATION REFS.- X705035000; X705038000

INTERNATIONAL PATENT CLASS- 6G06F01760

PATENT REFERENCE(S)- 3634669; 4642768; 4722055; 4752877; 4831526; 4837693; 4839804; 4876648; 4953085; 4969094; 4975840; 5136502; 5191522; 5202827; 5231571; 5291398; 5429506; 5446885; 5479344; 5673402

PATENT REFERENCED BY- 06138102

The invention relates to a system for analyzing and managing at least one lender owned life insurance policy on behalf of a lender to improve loan profitability, achieve investment results from the COLI, and to prevent investment loss as a result of adverse tax law changes. The system tracks mortgage balances, applies vesting schedules, determines appropriate face amounts, policy loan amounts and/or cash withdrawals to maximize return on investment for the lender. The system also reacts to adverse changes in the tax laws by adjusting the form of the insurance policy to a term policy with an increased face value and terminating the policy. Termination of the policy involves additional cash withdrawals which are used to pay back policy loans. The system further illustrates past and future performance of the policy based upon assumptions of tax law changes. Finally, the system monitors and administers the MCPP program on an ongoing basis.

**EXEMPLARY CLAIMS-** Claim- 1. A computer system that administers an experience rated group of lender owned life insurance policies on behalf of a plurality of borrowers, said system comprising: a policy enrollment unit for receiving borrower information from a first information source and receiving carrier information from a second information source; a purchasing unit for analyzing borrower information and carrier information and determining a premium value for said policies covering the lives of said plurality of borrowers; and a policy administrator unit for administering said policies, comprising: a premium device for paying premiums on said policy; a cash removal unit for determining an amount of cash to withdraw from said life insurance policy based upon the cash value of the policy and for withdrawing said amount of cash from said policy as a policy loan; an interest payor unit for paying interest on said policy loan; an accounting unit for determining premium costs imputed to said borrower, calculated on a periodic basis; a collecting unit for collecting death benefit proceeds of said policy; and a policy terminator unit for terminating said life insurance policy when an adverse tax law change occurs, said policy terminator unit including: a termination cash unit for determining an amount of cash to withdraw from said life insurance policy; a policy converter unit for converting said policy to a paid-up term life insurance policy in accordance with said carrier information, wherein said policy loan is converted to a term policy loan on said converted term life insurance policy; a termination interest payor unit for paying interest on said policy loan outstanding on said converted term life insurance policy; a termination collector unit for collecting death benefits proceeds of said converted term life insurance policy; and a loan repayer for paying principal of said term policy loan.

NO-DESCRIPTORS .

**II. System for the operation and management of one or more financial accounts through the use of a digital communication and computation system for exchange, investment and borrowing**

PAT 02-23-99 05875437 NDN- 175-0329-3623-7

INVENTOR(S)- Atkins, Charles Agee

PATENT NUMBER- 05875437

PATENT APPLICATION NUMBER- 842589

DATE FILED- 1997-04-15

PATENT DATE- 1999-02-23

NUMBER OF CLAIMS- 23

EXEMPLARY CLAIMS- 1

FIGURES- 38

ART/GROUP UNIT- 274

PATENT CLASS- Invention (utility) patent

PATENT ASSIGNEE(S)- Proprietary Financial Products, Inc.

ASSIGNEE CITY- Charleston

ASSIGNEE STATE- SC

ATTORNEY, AGENT, OR FIRM- Pennie & Edmonds LLP

U.S. PATENT CLASS- 7050400000

INTERNATIONAL PATENT CLASS- 6G06F01900

PATENT REFERENCE(S)- 4376442; 4376978; 4597046; 4774663; 5644727; 5910676

PATENT REFERENCED BY- 06003021; 06012044; 06016486; 06021397; 06029159; 06064986; 06067537

A practical communication and computer based system and method for effecting exchange, investment and borrowing involves the use of digital communication and computation terminals distributed to users and service providers. Through the system described and its combined computer and communication terminals, client/customers may purchase goods and services, save, invest, track bonuses and rebates and effect enhanced personal financial analysis, planning, management and record keeping with less effort and increased convenience. Through a prioritization function, the client specifies her financial objectives, her risk preference, and budgetary constraints. The prioritization function automatically suggests to the individual a portfolio of asset and liability accounts that may be credited and/or debited to provide the required funds for consumption and to form investments and borrowing to best realize her financial objectives over a defined time horizon. If desired, the system automatically manages a client's budgetary and financial affairs through a system of expert sweeps based on a client's preferences. The client's accounts are monitored via a borrowing power baseline, and considered imbalanced if the client's borrowing power is less than the minimum borrowing power. If the account is imbalanced, the client may reallocate the assets and liabilities within the client account and/or modify a set of constraints on the client account. If the client account is still not balanced after modification of the account, the system will deny authorization for certain requested transactions, and may initiate the liquidation of certain asset accounts and reduce the balances of one or more liability accounts.

**EXEMPLARY CLAIMS-** Claim- 1. A computer-based system for operating a plurality of client financial accounts comprising: processing means; memory means connected to said processing means for storing information pertaining to the client financial accounts; means for maintaining in said memory means a database comprising for each client account at least one asset account which receives funds for investment purposes, said asset account having an account balance which is updated by the computer system upon receipt of said funds, and at least one loan secured by a mortgage on a home and one or more assets; means for allocating said received funds among said accounts; means for calculating a borrowing power for each client account, said borrowing power being equal to the sum of the product of the value of each asset and an asset to loan ratio, added to the product of the value of the home and a home loan to value ratio less any liabilities including any mortgage balance that may be present in the client account; means for comparing said borrowing power calculated for each client account to a minimum established for that account; means for reporting the relationship of the borrowing power to said minimum; means for updating said borrowing power when changes occur in said asset and liability accounts; an optimization program utilized to determine an improved allocation of funds received with respect to expected client utility; and a plurality of client computers, each client computer comprising: means for communicating with said computer system; means for limiting use of said client computer to one or more clients by one or more identification means; and means for performing financial transactions which produce changes in a client's assets or liabilities.

NO-DESCRIPTORS .

**12. Increasing income trust computer transaction system and insured investment account system**

**PAT 01-26-99 05864685 NDN- 175-0327-0842-3**

**INVENTOR(S)- Hagan, Bernard P.**

**PATENT NUMBER- 05864685**

**PATENT APPLICATION NUMBER- 203214**

**DATE FILED- 1994-02-28**

**PATENT DATE- 1999-01-26**

**NUMBER OF CLAIMS- 14**

**EXEMPLARY CLAIMS- 1**

**FIGURES- 15**

**ART/GROUP UNIT- 241**

**PATENT CLASS- Invention (utility) patent**

**INVENTOR COUNTRY/ZIPCODE- 94118**

**ATTORNEY, AGENT, OR FIRM- Kain, Jr., Robert C.**

**U.S. PATENT CLASS- 3952350000**

**U.S. CLASSIFICATION REFS.- X395237000; X395236000**

**INTERNATIONAL PATENT CLASS- 6G06F01760**

**DISCLAIMER- 20120710**

**PATENT REFERENCE(S)- 4774663; 4953085; 4985833; 5291398; 5297026**

**PATENT REFERENCED BY- 06061661; 06064986**

This invention relates to a data processing system and computer-based data processing method for managing an investment account structure. According to some of the preferred embodiments, the account structure is

made up of one or more annuity contracts or life insurance contracts, each of the contracts being owned by one or more individual subscribers. Premiums are paid for the contracts being invested in one or more depository accounts, insured by deposit insurance, at one or more financial institutions. According to another preferred embodiment, annuity contracts are structured in one or more irrevocable trusts, with each subscriber's principal and/or income placed in a trust corpus of one of the irrevocable trusts. Each subscriber has a primary beneficiary (usually the subscriber) and a secondary beneficiary. When a subscriber dies, the trust income is distributed to the remaining primary beneficiaries. When the last subscriber dies, the entire trust is distributed proportionally to the secondary beneficiaries.

**EXEMPLARY CLAIMS- Claim- 1.** A computer-based transactional system for managing an insured investment account structure including one or more annuity contracts, each of the annuity contracts being owned by one or more individual beneficiaries and being paid for by one or more subscribers, premiums paid for the annuity contracts being invested in one or more depository accounts consisting of deposit contracts, insured by deposit insurance, at one or more financial institutions, said system comprising: computer processor means for processing data; storage means, coupled to said processor means, for storing data on a storage medium; depository monitoring means, coupled to said processor means and said storage means, for processing data representing the depository accounts insured by deposit insurance and for ensuring that deposit insurance requirements are met for all depository accounts and all beneficiaries; and payment tracking means, coupled to said processor means, said storage means and said depository monitoring means, for inputting data representing all transactions of the investment account structure and for computing ownership of a share of the investment account structure of each of one or more beneficiaries of each annuity contract; reporting means coupled to said processor means and said storage means for processing data and providing human readable reports on the subscribers, beneficiaries, annuity contracts, participating financial institutions, and depository accounts; and, bidding means, coupled to said processor means and said storage means, for inputting and processing data representing the depository accounts being offered by the participating financial institutions; said depository monitoring means including means for determining whether each ownership share of each depository account for each of said beneficiaries exceeds said deposit insurance and means to redeem deposit contracts to ensure that said deposit insurance requirements are met for all depository accounts and all beneficiaries and to invest in additional deposit contracts so that insurance requirements are met for the investment account structure for all beneficiaries in all participating depository institutions.

**NO-DESCRIPTORS .**

**] 3. Method for managing financial accounts by a preferred allocation of funds among accounts**

**PAT 12-22-98 05852811 NDN- 175-0324-5710-4**

**INVENTOR(S)- Atkins, Charles Agee**

**PATENT NUMBER- 05852811**

**PATENT APPLICATION NUMBER- 280096**

**DATE FILED- 1994-07-25**

**PATENT DATE- 1998-12-22**

**NUMBER OF CLAIMS- 39**

**EXEMPLARY CLAIMS- 1**

**FIGURES- 17**

**ART/GROUP UNIT- 271**

**PATENT CLASS- Invention (utility) patent**

**PATENT ASSIGNEE(S)- Proprietary Financial Products, Inc.**

**ASSIGNEE CITY- Charleston**

**ASSIGNEE STATE- SC**

**ATTORNEY, AGENT, OR FIRM- Pennie & Edmonds LLP**

**U.S. PATENT CLASS- 7050360000**

**U.S. CLASSIFICATION REFS.- X705035000; X705037000; X705038000**

**INTERNATIONAL PATENT CLASS- 6G06F01760**

**PATENT REFERENCE(S)- 3634669; 3697693; 4334270; 4346442; 4376978; 4597046; 4642767; 4722055; 4742457; 4752877; 4774663**

**PATENT REFERENCED BY- 05946668; 05987433; 06016476; 06064986; 06078904; 06115697**

A personal financial program is disclosed incorporating means of implementing, coordinating, supervising, planning, analyzing and reporting upon investments in an array of asset accounts and liability accounts within a client account. Through a prioritization function, the client specifies his financial objectives, his risk preference, a forecast of economic and financial variables, and budgetary constraints. The prioritization function suggests to the client a portfolio of asset and liability accounts that may be credited and debited to form investments and borrowings to best realize his financial objectives over a defined time horizon. In the

preferred embodiment a central structural element of the financial account is a liability account secured by the client's home and one or more asset accounts. Client funds that would normally be used to amortize the mortgage may be alternatively used according to a prioritized allocation of funds to asset accounts and liability accounts. The client account is imbalanced if the client's borrowing power is less than the minimum borrowing power specified by the financial institution. If the account is imbalanced, the client may reallocate the assets and liabilities within the client account and/or modify a set of constraints on the client account. If the client account is still not balanced after modification of the account, the system initiates a liquidation procedure.

**EXEMPLARY CLAIMS-** Claim- 1. A method for using a computer to operate at least one client financial account comprising the steps of: maintaining on said computer system data for each financial account, each financial account comprising at least one investment asset account which receives funds for investment purposes and has an account balance that is periodically updated, a first liability account comprising a loan which is secured with a lien on at least one home and one or more of said investment asset accounts, and at least one additional liability account; determining client preferences for operating the account; determining an allocation to the investment asset account(s) and the liability account(s) based upon the client preferences; allocating funds received in said financial account to pay interest on the loan with at least a portion of the remainder of said funds being allocated based upon the determined allocation rather than amortizing the loan; and updating the allocation in accordance with changes to financial and economic variables.

**NO-DESCRIPTORS .**

**14. Investment fund management method and system with dynamic risk adjusted allocation of assets**

PAT 09-22-98 05812987 NDN- 175-0316-2688-5

INVENTOR(S)- Luskin, Donald L.; Tint, Lawrence G.

PATENT NUMBER- 05812987

PATENT APPLICATION NUMBER- 404190

DATE FILED- 1995-03-13

PATENT DATE- 1998-09-22

NUMBER OF CLAIMS- 16

EXEMPLARY CLAIMS- 16

FIGURES- 12

ART/GROUP UNIT- 273

PATENT CLASS- Invention (utility) patent

PATENT ASSIGNEE(S)- Barclays Global Investors, National Association

ASSIGNEE CITY- San Francisco

ASSIGNEE STATE- CA

ATTORNEY, AGENT, OR FIRM- Fenwick & West LLP

U.S. PATENT CLASS- 7050360000

INTERNATIONAL PATENT CLASS- 6B06F01730

PATENT REFERENCE(S)- 4752877; 4953085; 5101353; 5126936

PATENT REFERENCED BY- 05913198; 05987433; 05991744; 06003018; 06012044; 06021397; 06029148; 06078904; 06078905

An invention for managing assets in one or more investment funds over a specified time. A fund comprises a plurality of assets (e.g., stocks bonds, currencies, gold, silver, oil, gas). A time horizon  $H_{sub t}$  representing the expected date at which cash will be withdrawn from the fund is associated with each fund. A time  $L_{sub H}$  represents the length of time remaining between the present time and the horizon time  $H_{sub t}$ . A risk tolerance,  $R_{sub I}$ , changes as a function of the decreasing time to horizon  $L_{sub H}$ . Typically, the risk tolerance decreases as the fund approaches the time horizon  $H_{sub t}$  (e.g., investments become more conservative toward the end of the life of the fund). A strategic investment mix of assets in the fund is periodically determined as a function of the changing risk,  $R_{sub I}$ . Investment modifications are accordingly made in the mix of assets in the fund. In one embodiment, a fund also includes a tactical investment strategy component (e.g., representing 25% of the overall investment strategy). The tactical investment strategy is based on the strategic investment mix. Typically, the percent of strategic investments directed to equity-type assets is used to define the percent of tactical investment that is directed to a first tactical investment allocation strategy. The remaining tactical investment amount is directed to a second tactical investment allocation strategy.

**EXEMPLARY CLAIMS-** Claim- 16. A computer implemented method for managing an investment fund having a time horizon defining a maturity of the investment fund, and an actual investment allocation of the assets in the investment fund, the method comprising: automatically and periodically determining a risk level for the investment fund as a function of the time horizon and a current date, the risk level determined by:  $R_{sub I} = L_{sub H} \text{ for } T_{sub 1} < L_{sub H} \leq T_{sub 2}$ ;  $R_{sub I} = T_{sub 1} - T_{sub 2} - L_{sub H}$  for  $L_{sub H} \leq T_{sub 1}$ ; where  $R_{sub I}$  is the risk level;  $L_{sub H}$  is a length of time to the time horizon;  $F$  is a constant risk factor selected for a predetermined maximum amount of risk; and  $T_{sub 1}$  and  $T_{sub 2}$  are times; automatically and periodically computing a risk adjusted asset allocation for the assets of the investment fund as a function of the risk level; and modifying the actual investment allocation of the investment fund to match the risk adjusted asset allocation for the investment fund.



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**15. Computer system and related equipment for spending and investment account management**

PAT 04-28-98 05745706 NDN- 175-0301-6399-3

INVENTOR(S)- Wolfberg, Larry; Wolfberg, Brent

PATENT NUMBER- 05745706

PATENT APPLICATION NUMBER- 367505

DATE FILED- 1994-12-30

PATENT DATE- 1998-04-28

NUMBER OF CLAIMS- 76

EXEMPLARY CLAIMS- 1

FIGURES- 2

ART/GROUP UNIT- 244

PATENT CLASS- Invention (utility) patent

INVENTOR COUNTRY/ZIPCODE- 90077; 90049

ATTORNEY, AGENT, OR FIRM- D'Alessandro & Ritchie

U.S. PATENT CLASS- 3952350000

U.S. CLASSIFICATION REFS.- X395240000

INTERNATIONAL PATENT CLASS- 6G06F01760

PATENT REFERENCE(S)- 4346442; 4750119; 4885685; 4972463; 4994964; 5036461; 5210678; 5214579

PATENT REFERENCED BY- 06078898; 06078905; 06161098

A method, computer system and equipment for managing an investment and spending account, so as to achieve selected guidelines for spending flexibility and investment returns. A computer system, for recording account information and a processor for processing account data and transactions associated with the account, implements a combined spending and investment account, by which an account holder achieves a selected degree of spending flexibility and a selected investment return. The computer system monitors inflows to and outflows from the account, and investment returns achieved for the account, and indicates when adjustments to the account are required to achieve the selected investment guidelines while presenting the account holder with the selected spending flexibility. The computer system associates a spending account with a related investment account, so that the account holder may access the spending account within the spending flexibility guidelines, while an account manager, either a human being or a computer program such as an artificial intelligence, controls the associated investment account within the investment guidelines. The computer system tracks and monitors the resources available in the spending account and the investment account, and responsive thereto, presents the account manager with signals indicating whether investment adjustments are suggested for meeting the investment guidelines and while still permitting outflows within the spending account according to the spending flexibility guidelines.

**EXEMPLARY CLAIMS-** Claim- 1. A computer system for managing and tracking an investment and spending account, said system comprising a memory comprising account information, said account information beings associated with an investment account and a spending account; a process or coupled to said memory, said processor being disposed to process said account information and to process at least one transaction associated with either or both said investment account or said spending account; said memory comprising a set of investment guidelines associated with said investment account and a set of spending flexibility guidelines associated with said spending account, said investment guidelines and said spending flexibility guidelines coordinated to obtain a selected rate of return; a program for directing said processor to determine, responsive to said account information, a first condition for raising a first signal associated with said investment guidelines, for directing said processor to determine, responsive to said account information a second condition for raising a second signal associated with said spending flexibility guidelines, and for directing said processor to raise said first signal or said second signal, responsive to said account information and said at least one transaction.

NO-DESCRIPTORS .

## **16. Community reinvestment act network**

**PAT 11-18-97 05689650 NDN- 175-0120-7479-9**

**INVENTOR(S)- McClelland, Glenn B.; Levinson, Richard D.; Sloan, Judith S.**

**PATENT NUMBER- 05689650**

**PATENT APPLICATION NUMBER- 393423**

**DATE FILED- 1995-02-23**

**PATENT DATE- 1997-11-18**

**NUMBER OF CLAIMS- 58**

**EXEMPLARY CLAIMS- 52**

**FIGURES- 12**

**ART/GROUP UNIT- 241**

**PATENT CLASS- Invention (utility) patent**

**INVENTOR COUNTRY/ZIPCODE- 06870; 10566; 10804**

**ATTORNEY, AGENT, OR FIRM- Howrey & Simon; Scott, Jr., Thomas J.**

**U.S. PATENT CLASS- 3952360000**

**INTERNATIONAL PATENT CLASS- 6G06F01760**

**PATENT REFERENCE(S)- 4346442; 4739478; 4751640; 4799156; 4876648; 4885685; 4910676; 4933842; 5025372; 5101353; 5126936; 5193056; 5220500; 5237500; 5262942; 5272623; 5291398; 5297031; 5297032**

**PATENT REFERENCED BY- 06122635; 06161098**

The CRA apparatus compiles investor needs for CRA qualified assets, creates portfolios of assets that would be recognized by regulatory agencies as meeting the requirements of the CRA and allocates CRA credits separately from the financial return of the portfolio of assets. The CRA apparatus can acquire CRA eligible loans from the secondary market, directly from private or governmental agencies, and/or directly from loan originators. The CRA apparatus determines whether an asset meets CRA qualifying parameters from demographic and statistical data regarding the borrower and/or the financial asset. The apparatus determines, by using CRA qualification factors as well as investor requirements, whether a loan should be acquired. In a parallel accounting process, the apparatus creates a pool of CRA eligible "credits" from the assets in each portfolio and then tracks and allocates specific CRA credits associated with specific assets to specific portfolio investors. This allocation of CRA credits creates specific "CRA interests" for each investor. These interests would be recognized by regulatory agencies as meeting the requirements of the CRA. The invention can provide a complete audit trail for the allocation of CRA interest and can generate the information necessary to comply with all regulatory reporting requirements. The CRA apparatus allows investors to obtain and report geographically specific CRA interests while participating in a diversified, risk managed portfolio.

**EXEMPLARY CLAIMS- Claim- 52.** A financial and CRA interest transaction network apparatus based on a managed pool of assets and a computer processor comprising: a client service administrator establishing an investor account through the modification of a computer record, said client service administrator providing a command interface to command said transaction network to increase or decrease an investor's financial holding in the network and to specify an investor's desired geographic area from which to acquire CRA interest; a data storage device operationally connected to said client service administrator, said data storage device for maintaining computer records of said investor account; a CRA interest accountant operably connected to said data storage device, said CRA interest accountant operatively connected to said client service administrator, said CRA interest accountant determining the CRA interest of assets represented by computer records, said CRA interest accountant allocating said CRA interests to said investor account by modifying computer records of said investor account; a transfer agent linked to said data storage device and said client service administrator, said transfer agent conducting transactions by book entry by modifying computer records to denote said transactions, said transfer agent buying and selling assets for said pool of assets; a financial accountant linked to said transfer agent, said financial accountant operating in parallel with said CRA interest accountant, said financial accountant determining said pool of assets' share price and said financial accountant providing means for distributing a financial return from said pool of assets to said investor account; an investment advisor linked to said transfer agent, said financial accountant and said CRA accountant, said investment advisor providing means for determining appropriate assets to buy or sell to maintain said pool of assets within a predetermined range of financial risk while maintaining a CRA interest balance to substantially fulfill the CRA interest demand from said investor account; and a custodian linked to said transfer agent, said custodian providing means for receiving assets purchased by said transfer agent and acknowledging receipt thereof.

**NO-DESCRIPTORS .**

**17. System for the operation and management of one or more financial accounts through the use of a digital communication and computation system for exchange, investment and borrowing**

PAT 07-01-97 05644727 NDN-175-0111-2074-1

**INVENTOR(S)-** Atkins, Charles Agee

**PATENT NUMBER-** 05644727

**PATENT APPLICATION NUMBER-** 350442

**DATE FILED-** 1994-12-06

**PATENT DATE-** 1997-07-01

**NUMBER OF CLAIMS-** 122

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 38

**ART/GROUP UNIT-** 241

**PATENT CLASS-** Invention (utility) patent

**PATENT ASSIGNEE(S)-** Proprietary Financial Products, Inc.

**ASSIGNEE CITY-** Charleston

**ASSIGNEE STATE-** SC

**ATTORNEY, AGENT, OR FIRM-** Pennie & Edmonds LLP

**U.S. PATENT CLASS-** 3952400000

**INTERNATIONAL PATENT CLASS-** 6G06F01900

**PATENT REFERENCE(S)-** 3634669; 3697693; 4007355; 4334270; 4346442; 4376978; 4597046; 4642767; 4722055; 4742457; 4752877; 4774663; 4868376; 4876648; 4885685; 4910676; 4933842; 4989141; 5025138

**PATENT REFERENCED BY-** 05875437; 05884283; 05893096; 05899998; 05903873; 05903879; 05911136; 05913202; 05918217; 05924084; 05933815; 05946667; 05946668; 05987434; 05987436; 05991743; 06003021; 06012043; 06016482; 06016486; 06018721; 06021397; 06023688; 06029159; 06049781; 06049782; 06064984; 06064985; 06064986; 06067537; 06070150; 06076072; 06078905; 06085178; 06092056; 06112190

A practical communication and computer based system and method for effecting exchange, investment and borrowing involves the use of digital communication and computation terminals distributed to users and service providers. Through the system described and its combined computer and communication terminals, client/customers may purchase goods and services, save, invest, track bonuses and rebates and effect enhanced personal financial analysis, planning, management and record keeping with less effort and increased convenience. Through a prioritization function, the client specifies her financial objectives, her risk preference, and budgetary constraints. The prioritization function automatically suggests to the individual a portfolio of asset and liability accounts that may be credited and/or debited to provide the required funds for consumption and to form investments and borrowing to best realize her financial objectives over a defined time horizon. If desired, the system automatically manages a client's budgetary and financial affairs through a system of expert sweeps based on a client's preferences. The client's accounts are monitored via a borrowing power baseline, and considered imbalanced if the client's borrowing power is less than the minimum borrowing power. If the account is imbalanced, the client may reallocate the assets and liabilities within the client account and/or modify a set of constraints on the client account. If the client account is still not balanced after modification of the account, the system will deny authorization for certain requested transactions, and may initiate the liquidation of certain asset accounts and reduce the balances of one or more liability accounts.

**EXEMPLARY CLAIMS-** Claim- 1. A computer-based system for operating a plurality of client financial accounts comprising: processing means; memory means connected to said processing means for storing information pertaining to the client financial accounts; means for maintaining in said memory means a database comprising for each client account at least one asset account which receives funds for investment purposes, said asset account having an account balance which is updated by the computer system upon receipt of said funds, and at least one liability account; means for allocating said received funds among said accounts; and a plurality of client computers, each client computer comprising: means for communicating with said computer system; means for limiting use of said client computer to one or more clients by one or more identification means; and means for interacting with said client account maintained in said memory means.

**NO-DESCRIPTORS .**

**18. Method and apparatus for pooling and distributing bond dividends**  
PAT 01-07-97 05592379 NDN- 175-0100-4053-1

INVENTOR(S)- Finfrock, Dale B.; Dervaes, Jr., A. Rene; Dervaes, Robert S.

PATENT NUMBER- 05592379  
PATENT APPLICATION NUMBER- 319253  
DATE FILED- 1994-10-06  
PATENT DATE- 1997-01-07  
NUMBER OF CLAIMS- 5  
EXEMPLARY CLAIMS- 1  
FIGURES- 3

ART/GROUP UNIT- 241  
PATENT CLASS- Invention (utility) patent  
INVENTOR COUNTRY/ZIPCODE- 33480; 33480; 21014  
ATTORNEY, AGENT, OR FIRM- Malin, Haley, DiMaggio & Crosby, PA  
U.S. PATENT CLASS- 3952390000  
U.S. CLASSIFICATION REFS.- X395240000; X395242000  
INTERNATIONAL PATENT CLASS- 6G06F01500  
PATENT REFERENCE(S)- 5025372; 5214579  
PATENT REFERENCED BY- 05918217; 05933815; 06012044; 06021397; 06058371; 06061661

The instant invention is a method and apparatus for administering a program to senior citizens for managing and distributing the interest from pooled government bonds or the like. The program derived around a bond fund unit of various security offerings to specific groups of senior citizens having a common age and financial goal. As long as the participant is alive, the participant will share equally in an increasing income stream derived from the interest from the security due to the number of decreasing participants in a fixed pool based on the participant's initial investment. The income producing bonds jointly pooled and singularly administered based upon U.S. Treasury bonds whose resulting interest is distributed to the remainder of living participants while bond maturity value remains payable to the participant or their estate. The program aids the participants and managers involved with the program regarding Fund assets, statistical predictions, and dividend distribution.

**EXEMPLARY CLAIMS-** Claim- 1. A microprocessor based computer system including computer readable program code stored in a computer readable memory for administering a program to provide a base income to senior citizens, the income of which increases to living participants with full return of investment, which determines payments required for participation in the program and distribution thereof, said system comprising: a base microprocessor computer system having a memory means, and a modem means for communicating with remote computer terminals; at least one remote computer terminal having an input means and a modem means for communicating with said base microprocessor computer system; a predetermined group size of living participants for participation in a group program; a minimum amount of payment per said living participant required for participation in the program, said minimum payment based on an interest producing security with a fixed maturity date to produce participation payment data; said at least one remote computer terminal input means and modem means for entering said participation payment data and security purchases in the microprocessor based computer system memory means; said computer readable program code including means for causing said computer system to periodically process said participation payment data to determine the total number of living participants relative to the number of securities purchased and interest producible therefrom to produce total participation data; output means responsive to said total participation data for providing portfolio management data output reports so that interest is paid out to the living participants; means for distribution of security proceeds upon maturity to participants or participant's heirs; output means for generating a management report including said portfolio management data and said participation data.

NO-DESCRIPTORS.

**19. Automated system for providing liquidity to securities markets**  
PAT 03-31-92 05101353 NDN-095-0180-1817-3

**INVENTOR(S)-** Lupien, William A.; McCormack, John P.; Schulman, H. E. C.

**PATENT NUMBER-** 05101353

**PATENT APPLICATION NUMBER-** 358873

**DATE FILED-** 1989-05-31

**PATENT DATE-** 1992-03-31

**NUMBER OF CLAIMS-** 16

**EXEMPLARY CLAIMS-** 1

**FIGURES-** 9

**ART/GROUP UNIT-** 231

**PATENT CLASS-** Invention (utility) patent

**PATENT ASSIGNEE(S)-** Lattice Investments, Inc.

**ASSIGNEE CITY-** Cambridge

**ASSIGNEE STATE-** MA

**ATTORNEY, AGENT, OR FIRM-** Rosden, Peter E.

**U.S. PATENT CLASS-** 3644080000

**U.S. CLASSIFICATION REFS.-** X340825260; X340825270

**INTERNATIONAL PATENT CLASS-** 5G06F01520; H04Q00000

**PATENT REFERENCE(S)-** 4334270; 4412287; 4674044; 4677552; 4694397; 4751640; 4903201

**PATENT REFERENCED BY-** 05262942; 05297031; 05361199; 05414838; 05497317; 05500793; 05508913; 05557517; 05563783; 05590325; 05655088; 05671364; 05689650; 05689652; 05704045; 05742775; 05778357; 05799287; 05806047; 05806049; 05809483; 05812987; 05819238; 05835896; 05845265; 05845266; 05873071; 05884286; 05893079; 05905974; 05918218; 05926792; 05926801; 05933815; 05946667; 05950176; 05950177; 05963923; 05970479; 05983204; 05987432; 05999917; 06012044; 06012046; 06018722; 06021397; 06029146; 06035287; 06064971; 06085176; 06092056; 06098051; 06112189; 06122623; 06134535; 06134536; 06148293; 06157918; 06161098

An automated system for managing one or more large investor portfolios containing both cash and numerous, diversified securities in a real time environment provides added liquidity to the securities markets while maintaining predetermined portfolio objectives for each portfolio. The disclosed system uses data processing equipment to place buy and sell orders on securities markets and with automated brokers to execute trade directly between users of the system and external markets. Holders of such large, diversified portfolios have usually been long-term investors. The system allows active market participation by such investors whereby they provide added liquidity and depth to the securities markets while overcoming problems caused by trader identification and the inability to enter, change or execute orders in a real time environment. The system monitors and analyzes a variety of factors which effect trading decisions in a vast number of securities. Such factors include other security trades, price and size quotations and financial ratios for particular securities. This information is further analyzed in relationship to each investor portfolio using the system to determine what transactions might benefit the portfolio by seeking to provide an incremental return while accommodating the basic portfolio objectives. These objectives may be changed at the election of the investor at any time. Orders representing such transactions are entered by the system and executed in real time either internally between system users or externally with computerized brokers and/or stock exchanges and markets.

**EXEMPLARY CLAIMS-** Claim- 1. An on-line interactive investment processing system for providing added liquidity to markets for investment securities and for managing in a real time environment the interaction of one or more large, institutional portfolios of investment securities with each other and with the securities markets, wherein each portfolio has an inventory including numerous and diverse securities and each portfolio has separate portfolio objectives represented by a specified desired mix of investments in securities and cash reserves through generation of trading decisions in the form of buy and sell orders on behalf of each of those portfolios comprising: first storage means for collecting and storing securities transaction data and price quotation data both from a plurality of securities markets external to the system and from buy and sell orders and transactions generated internal to the system; controller means for accessing data stored in said first storage means, for analyzing the data stored in said first storage means and for substantially simultaneously transacting multiple buy and sell orders representing a plurality of securities for one or more of the investor portfolios, wherein said controller means presents orders representing such transactions first only internally to other investors using the system for real time matching and execution and wherein buy and sell orders are executed on a price/time priority basis among internal investors; second storage means coupled to said controller means for collecting and storing data for each investor portfolio concerning that particular portfolio and for storing buy and sell orders on behalf of that particular portfolio; investor computer means for maintaining each investor portfolio wherein said investor computer means is coupled to said second storage means for analyzing data concerning the portfolio of that particular investor and for generating buy and sell orders for transmission to said second storage means on behalf of that portfolio in order to retain the portfolio objectives while also providing liquidity of the securities market; third storage means coupled to said controller means for collecting and storing data concerning the portfolios of all investors using the system; supervisory computer means coupled to said third storage means for supervising and ensuring the proper functioning of the system; external data terminal means coupled to said controller means for linking said controller means to external automated securities brokers and exchanges, for transmitting transaction data to external automated securities brokers and exchanges and for transmitting orders remaining unexecuted after first being presented internally to other investors using the system to external automated securities brokers and exchanges for matching and execution in a substantially real time environment; trade data terminal means coupled to said controller means for reporting all executed sales internal to the system to a central reporting house; and settlement data terminal means coupled to said controller means for reporting all trades involving individual securities for settlement purposes to an external organization.

## **20. Automated investment fund accounting system**

**PAT 00-00-90 04933842 NDN-095-0158-2520-1**

**INVENTOR(S)-** Durbin, Gary L.; Johnson, Martha C.; Willey, Scott A.; Hemmert, Michael J.; Beaman, Karen V.

**PATENT NUMBER-** 04933842

**PATENT APPLICATION NUMBER-** 162399

**DATE FILED-** 1988-02-29

**PATENT DATE-** 1990-06-12

**NUMBER OF CLAIMS-** 13

**EXEMPLARY CLAIMS-** 13

**FIGURES-** 8

**ART/GROUP UNIT-** 236

**PATENT CLASS-** Invention (utility) patent

**PATENT ASSIGNEE(S)-** Tesseract Corporation

**ASSIGNEE CITY-** San Francisco

**ASSIGNEE STATE-** CA

**ATTORNEY, AGENT, OR FIRM-** Townsend & Townsend

**U.S. PATENT CLASS-** 3644080000

**U.S. CLASSIFICATION REFS.-** X364406000

**INTERNATIONAL PATENT CLASS-** 5G06F01530

**PATENT REFERENCE(S)-** 4648037; 4674044; 4694397; 4750121; 4751640; 4774663

**PATENT REFERENCED BY-** 05136502; 05210687; 05214579; 05404291; 05644727; 05671364; 05689650; 05740427; 05802500; 05806047; 05839118; 05893079; 05918217; 05926792; 05950177; 05966699; 05970479; 05978780; 05999917; 06012044; 06012046; 06016483; 06018722; 06021397; 06041313; 06067523; 06098051; 06108665; 06112189; 06125355; 06134536; 06157918; 06161098

A computerized investment plan accounting system manages data for investment plans with multiple participants and multiple investment funds. When a transaction is entered, one side of the transaction (either units or dollars) may be flagged as pended. When the unit value for the fund is determined and stored, the pended side is calculated, stored, dated, and flagged as fixed. Investment fund balances are accumulated by posting the transactions to investment fund accounts. Individual participant fund balances are determined by accumulating transaction data in a multi-dimensional matrix. The participant fund balances are combined for all participants, and the combined totals are compared to the investment fund balances.

**EXEMPLARY CLAIMS-** Claim- 13. A method for processing data on a general purpose computer for a plurality of investment funds and a plurality of participants, each of the investments funds having a time-variant unit value, the method comprising: ; (a) storing transaction records containing externally-supplied transaction information, said transaction information identifying one of the participants and including at least one investment fund, a transaction effective date, a transaction type, and a transaction amount; ; (b) storing at least one externally-supplied unit value for each investment fund as of a unit value effective date; ; (c) periodically updating a selected subset of said transaction records using the investment fund and transaction effective date stored in the transaction record to determine the investment fund unit value as of the transaction effective date; ; (d) storing data representing fund totals for each of the investment funds; ; (e) periodically extracting data from the transaction records and posting debits and credits to said master file means; and ; (f) comparing the fund totals stored in said master file means with fund totals accumulated from the transaction records.

## 21. PORTFOLIO ACCOUNTING AND RISK MANAGEMENT SYSTEM

PCT 12-14-00 00075836 WO NDN- 172-0035-9897-3

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**APPLICANT(S)-** TRADING RESEARCH DESIGN, INC. 95 Saratoga Road, Amherst, NY 14226-4336  
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**DATE FILED-** 2000-06-05

**PUBLICATION NUMBER-** 00075836 WO

wo/ WO 00/15836 A 2

**DOCUMENT TYPE-** A2

**PUBLICATION DATE-** 2000-12-14

**PATENT PRIORITY INFO-** 60/137,690, 1999-06-04, United States of America

**ATTORNEY, AGENT, OR FIRM-** HJORTH, Beverly, E., Weingarten, Schurgin, Gagnebin & Hayes LLP, Ten  
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**INTERNATIONAL PATENT CLASS-** G06F; 17/60

**PCT APP. NO.-** PCT/US00/15452

**FILING LANGUAGE-** English

**LANGUAGE-** English

A method and system for managing investment portfolio risk on a computer system. A plurality of parameters, including an identifier, a market price, a stop-loss price, a commission, a skid, and a number of shares or contracts all associated with an investment instrument, are stored on a computer-readable medium, along with an equity value associated with a usersquos portfolio. A point risk value is determined for a potential investment. The point risk value is an intermediate value multiplied by the number of shares or contracts, the intermediate value comprising the market price minus the stop-loss price plus the commission plus the skid (for long transactions). A plurality of risk scenarios are displayed showing proposed numbers of shares or contracts associated with the point risk value for a plurality of selected size risk values. Other risk characteristics may also be determined and displayed. The system and method may be embodied in a variety of implementations, such as in a client/server system or in a stand-alone computer system.

**DESIGNATED COUNTRY(S)-** CA; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE

## 22. UNIT INVESTMENT TRUST GLOBAL DATA PROCESSOR

PCT 12-07-00 00073923 WO NDN- 172-0035-7984-0

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DATE FILED- 2000-05-04

PUBLICATION NUMBER- 00073923 WO

DOCUMENT TYPE- A2

PUBLICATION DATE- 2000-12-07

PATENT PRIORITY INFO- 09/324,296, 1999-06-02, United States of America

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INTERNATIONAL PATENT CLASS- G06F; 17/00

PCT APP. NO.- PCT/US00/12359

FILING LANGUAGE- English

LANGUAGE- English

A novel computer system implements an integrated banking and investment process. The system manages a plurality of accounts that are aggregated into selected trusts. These investment vehicles allow for enhanced returns to participants under specified terms while providing a significant level of traditional banking services.

DESIGNATED COUNTRY(S)- AE; AL; AM; AU; BA; BB; BG; BR; CA; CN; CR; CU; CZ; EE; GD; GE; HR; HU; ID; IL; IN; IS; JP; KP; KR; LC; LK; LR; LT; LV; MA; MG; MK; MX; NO; NZ; PL; RO; SG; SI; SK; TR; TT; UA; UZ; VN; YU; ZA; GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG .



## 23. PORTFOLIO INVESTMENT GUIDELINE COMPLIANCE AND FINANCIAL FUND ADMINISTRATION SYSTEM

PCT 10-05-00 00058900 WO NDN- 172-0034-2964-6

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DATE FILED- 2000-03-31

PUBLICATION NUMBER- 00058900 WO

DOCUMENT TYPE- A1

PUBLICATION DATE- 2000-10-05

PATENT PRIORITY INFO- 60/127,273, 1999-03-31, United States of America; 09/516,377, 2000-03-01, United States of America

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INTERNATIONAL PATENT CLASS- G06F; 17/60; 17/00; 19/00

PCT APP. NO.- PCT/US00/08642

FILING LANGUAGE- English

LANGUAGE- English

A system for portfolio compliance and administration receives data concerning financial instruments that comprise a financial fund from a collection of information sources. Tests are designed and applied to the financial data to confirm that the fund is being managed in accordance with predetermined rules. The user may correct or update the financial data but this history of changes is recorded, allowing a complete audit. The financial data (or any reports based thereon) can be provided to the user in a number of formats (711, 712), such as on a computer display, in a printout or over a global computer network, such as the worldwide web. The user is notified automatically by urgent means when certain test results are obtained by the system. The fund may be tested for compliance with the fund rules, tax reports may be created and a complete audit trail developed without importing the same data numerous times.

DESIGNATED COUNTRY(S)- AL; AU; BA; BB; BG; BR; CA; CN; CU; CZ; EE; GE; HU; ID; IL; IS; JP; KP; KR; LC; LK; LR; LT; LV; MG; MK; MN; MX; NO; NZ; PL; RO; SG; SI; SK; SL; TR; TT; UA; UZ; VN; YU; GH; GM; KE; LS; MW; SD; SL; SZ; TZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

**3l. Managing construction funds and investments with a computer model (medical ADP)**

INS 79-02 1387076 C79024453 (CCA) NDN- 082-0138-7076-0

Grimmelman, F. J.

**JOURNAL NAME-** Hospital Financial Management

**ABBREVIATED JOURNAL TITLE-** Hosp. Financ. Manage. (USA)

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**NO-ABSTRACT**

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**IDENTIFIER(S)-** computer model; construction funds; financial DP; investments; medical ADP

**TREATMENT CODE-** TC-G

**SECTIONAL CLASSIFICATION CODE-** C7120; C7140